

PRELIMINARY DRAINAGE (RISK) ASSESSMENT FOR FLOODPLAIN ENCROACHMENT

County: _____ Route: _____ Item Number : _____

Station: _____

LEVEL 1 - Qualitative assessment involving the application of hydrologic, hydraulic and geomorphic factors to identify potential problems and alternative solutions.

Do Hydrology.

Do Field Survey (i.e. bridge opening, roadway profile, stream profile, hydraulic sections, etc.).

Review (check) available documentation:

☐

Bridge Maintenance File

☐

Bridge Plans

☐

County Soils Study

☐

Old Drainage Folder

☐

Flood Insurance Maps

☐

Flood Insurance Study

☐

Geologic Maps

☐

Roadway Plans

☐

USCOE Study

☐

USGS Study

☐

Other : _____

Identify Problems : _____

Problems Solved? ☐ Yes

☐

No; if No, go to **LEVEL 2**.

Is the proposed structure a new crossing? ☐ go to **LEVEL 2**.

Is the proposed crossing > 2 bridge widths up or downstream, ☐ > 1' grade change, ☐ > 50' (total bridge length) multispans, ☐ > 100' single span, ☐ or in a Regulatory Floodway; ☐ go to **LEVEL 2**.

Replace with hydrologic, hydraulic and geometrically Equivalent Crossing.

Document Design.

LEVEL 2 - Quantitative analysis combined with a more detailed qualitative assessment of the hydrologic, hydraulic and geomorphic factors of the stream.

List Design Controls (i.e. hydraulic, roadway, structure, surrounding property, etc.): _____

Do Stream Stability Analysis.

Do Hydraulic Analysis.

Do Scour Analysis.

Were the Design Controls met? ☐ Yes ☐ No; if No, explain; then go to **LEVEL 3** : _____

Is the deck area > 125,000 square feet; ☐ go to **LEVEL 3**.

Is the existing or proposed structure a unique bridge, foundation, etc.; ☐ **LEVEL 3**.

Document Design.

LEVEL 3 - Complex quantitative analysis based on detailed mathematical modeling and possibly physical hydraulic modeling. This analysis is necessary only for high risk locations, extraordinarily complex problems, and after the fact analyses where losses and liability costs are high.

Check if used: ☐ FESWMS Analysis ☐ Floodway Modification* ☐ Overflow structure(s)
☐ Risk Analysis ☐ Other : _____

*IF EXISTING FLOODWAY WIDTH < PROPOSED, PURCHASED FLOODWAY INCREASE.

IF EXISTING FLOODWAY ELEVATION < PROPOSED, PURCHASED FLOODPLAIN INCREASE.

Document Design.